

ABSTRACT

An encryption system and method that utilizes quantum key distribution (QKD) and that is compliant with Federal Information Processing Standards (FIPS) for encryption. The system includes first and second
5 transmitters/receivers operatively connected to respective first and second stations of a FIPS-compliant VPN. The VPN is operatively connected to a classical encryption system, which in turn is connected to a QKD system. The QKD system provides a quantum key to the classical encryption system, which then uses the key to encrypt and decrypt a plaintext signal.

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